LISTING OF THE CLAIMS:

1. (Currently Amended) A method for high resolution cross sectioning of polysilicon features with a dual electron (E) beam and focused ion beam, comprising consecutive steps of:

encapsulating the polysilicon features of interest with a metal coating to preserve the profile of the polysilicon features of interest;

ion beam cross sectioning of the metal encapsulated polysilicon features;

electron (E) beam and etching gas etching and cleaning of the polysilicon from the encapsulating metal to remove the polysilicon while leaving the profile of the polysilicon surface features preserved in the encapsulating metal.

2. (Original) The method of claim 1, wherein the method is practiced with a dual beam tool comprising an electron (E) beam and focused ion beam tool.

3. (Original) The method of claim 1, wherein the method is practiced with a dual beam tool comprising a scanning electron microscope (SEM) and a focused ion beam tool.

4. (Original) The method of claim 3, where in the electron (E) beam and etching gas etching and cleaning of the polysilicon from the encapsulating metal, cleaning and imaging are simultaneous, allowing E beam imaging while the cleaning is taking place to evaluate the extent of cleaning.

5. (Original) The method of claim 4, wherein the step of etching and cleaning is followed by scanning electron microscope (SEM) imaging and evaluation of the metal preserved polysilicon features.

6. (Original) The method of claim 5, wherein the step of etching and cleaning utilizes an etching gas comprised of XeF2 (xenon difluoride).

7. (Original) The method of claim 3, wherein the step of etching and cleaning is followed by scanning electron microscope (SEM) imaging and evaluation of the metal preserved polysilicon features.

8. (Original) The method of claim 7, wherein the step of etching and cleaning utilizes an etching gas comprised of XeF2 (xenon difluoride).

9. (Original) The method of claim 1, wherein the step of encapsulating includes encapsulating the polysilicon features of interest with an E (electron) beam initiated metal coating wherein the E beam energizes and speeds up metal deposition during the encapsulating step while resulting in minimized damage to the features of interest.

10. (Original) The method of claim 1, wherein the step of etching and cleaning utilizes an etching gas comprised of XeF2 (xenon difluoride).

11. (Original) The method of claim 1, wherein the method is practiced on polysilicon features having dimensions of 90 nm or smaller.

12. (Original) The method of claim 1, wherein the method is practiced with a dual beam tool comprising a scanning electron microscope and focused ion beam tool, and the etching and cleaning step is followed by scanning electron microscope (SEM) imaging and evaluation of the metal preserved polysilicon features of interest.

13. (Currently Amended) The method of claim 1, including encapsulating the ~~polysileon~~ polysilicon features in platinum Pt.

14. (Currently Amended) The method of claim 1, including encapsulating the ~~polysileon~~ polysilicon features in tungsten W.

15. (New) A method according to claim 1, comprising the further step of measuring dimensions of the polysilicon features as preserved in the encapsulating metal.

16. (New) A method according to claim 1, wherein:

said polysilicon features include top surfaces and edges of the polysilicon; and

the method comprises the further step of measuring dimensions of the polysilicon features as preserved in the encapsulating metal.